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NOTES ON PREHISTORIC PALESTINE AND SYRIA

By CHARLES PEABODY

CONSIDERING the abundance of work done and of books written concerned with the proto-historic and the historic periods in the Near East, and especially in the regions immediately bordering on the Mediterranean to the east, the earlier prehistoric ages have been comparatively neglected. It was therefore a great privilege and pleasure to be permitted to accompany Professor Max Kellner of the Episcopal Divinity School in Cambridge, Massachusetts, when in June, 1914, he returned to Palestine for purposes of exploration. On a camping trip in the Lebanon in 1913 he had made the acquaintance of Neolithic and Palaeolithic sites, in the open air and in caves, secured a large and appetizing private collection of flints, and the assurance of coöperation and of permission from former workers in the field. Acting, then, on his invitation, the writer spent six weeks in his company, studying and exploring, and gathering notes. A few of these may be of more general interest.¹

SITES IN THE OPEN AIR

Palestine and Syria abound in "flinting" grounds; almost anywhere within a few hours' ride specimens of quality and beauty

¹ It is not necessary to insert a complete bibliography; the most important explorations and publications of the Stone Ages in Palestine and Syria follow: *The Excavations at Gezer*, by R. A. Stewart Macalister (Publications in 1912); references in the works of Père Vincent and especially in his *Canaan*. Cf. the Dominican collections in Jerusalem; the researches of Père Germer-Durand and the Assumptionist collections at Jerusalem; the explorations near Beyrout, in the Lebanon, Coele-syria and the Anti-Lebanon of the Professors of the Université St. Joseph, Beyrout (especially those of Professors Zumoffen and Desribes). The former has published *La Phénicie Avant les Phéniciens*, 1900, and two articles in *Anthropos*, viz., 1908, pp. 431 ff., and 1910, pp. 143 ff. Further see Hugo Obermaier, *Der Mensch der Vorzeit*, pp. 171, 317, etc.; (in *Der Mensch Aller Zeiten*); and see also A. Kohn *Die Prähistorischen Perioden in Palästina* (Mittheilungen der Anthrop. Ges. in Wien, XLIV, III and IV, 1914), pp. 81ff.

may be gathered. Most of them, as is the case elsewhere, are Neolithic and there may be picked up an abundance of knives, front and side-scrapers, perforators, hammerstones, chipped and polished celts and their fragments, refuse chips of considerable variety and interest, nuclei, nodules, and spalls. These include the well-known saws and sickle-blades already familiar in Egypt, distinguished by their brilliant partial luster and their rectangular shape. On the surface specimens every variety of patination may be observed, a great deal of weathering and frequent alteration of substance. Localization is always present; the importance of this factor in the distribution of flints has hardly been recognized and the phenomenon insufficiently explained.

The writer has searched fields from the Jordan to the Rio Grande and finds as a rule that not only is a particular part of a particular field the richest, but that types of implements may gather themselves together after their kind. That the specialized and sedentary life of the Neolithic flint-knappers accounts for this is probable, but a good many questions remain unanswered.

Perhaps ninety per cent of all the flints picked up on any Neolithic site are chipped on one side only; we took pains to observe the frequency of the occurrence of the flints with the smooth face up; the impression that wind, water, soil-creep, etc., as well as the effects of ploughing tended to the placing of the specimens in this position was more or less disproved; the larger number do so lie; the seeming greater majority is explained by the greater ease with which such flints are detected; a greater surface in one plane is exposed to sight, and with its smooth quality makes a better reflector for the light.

Certain cautions are to be observed: (a) in a mountainous country there are ample opportunities for nature to imitate artificial forms; flints falling from a height or rolling and hitting each other come to look like Neolithic "turtle-backs" or Palaeolithic "*coups de poing*"; (b) the variations of temperature and the sand-blast along the sand dunes play tricks with fractures that are not always easy to recognize; (c) "starch," a natural fracture is deceptive here as elsewhere; particularly on the Râs Beyrout do these

parallel-faced forms occur; (*d*) gun flints have been made for centuries and the chips left over in their manufacture must be looked out for; (*e*) even the Turks macadamize the roads and in a country where the flint seems everywhere to crop out of the native rock it is an easy matter for many chips to be left by the road-makers; (*f*) the Palestinian harrow is embellished on its under surface with sharp flints set in as teeth; of course, these have been artificially chipped and a modern atelier of this kind is interesting; we found the vestiges of one near Gebel Osa (Hosea's Tomb); (*g*) others besides ourselves have searched the fields, sat down and "chucked" the flints they did not want, making little "localizations" in quite a secondary sense.

Discounting the cautions, "flinting" is a real pleasure; no two sites are alike and there is always a chance, while traveling, of happening on one completely virgin or offering new or unknown forms.

MT SKOPUS

Near Jerusalem, Mt Skopus to the north offers a hundred acres or more carrying many flints; precautions as above are to be observed. Apparently, man has lived here continuously from the early Palaeolithic days to the present; deeply and characteristically patinated "*coups de poing*" or "Bouchers" occur, mixed with specimens of any given age, or youth. Geological changes since late glacial times have been few, no ice covered the land, the temperature seems to have been such that man was not driven away and the floods seem not to have washed away his implements.

This mixture in open air sites causes the judgment to depend on types and consequently to be less certain than in Europe.

The Mt Skopus specimens show localization near a megalithic structure or "high place" on the top; it is tempting to connect the two, giving a prehistoric date to the "high place" and a ceremonial significance to the flints.

Of course, the constant tale of "circumcision knives" is just as important as its name implies; if such flints continued in use there were hundreds already in existence for pattern or adoption

ten thousand years before circumcision became historic. We do not forget, however, that it is now well recognized that flints continued everywhere to be used well into the metal ages; Palestine is no exception.

MUSH-RA

"Beyond Jordan", leading up the left or south bank of the Wadi Hesbân is a series of dolmens and stone circles some of which have been described by Vincent, Benzinger (in Baedeker) and others. A rather remarkable row of dolmens lies on a ridge over against Umm el Guttain (Mush-Ra), to the northwest; this is near where the water from the Wadi Hesbân enters the Jordan flood plain. The remains of four dolmens distant sixteen, eleven, and seventeen meters respectively, form a nearly straight line on the ridge in a southwest-northeast direction; they seem to have had interesting cellas and one of them has a perforated perpendicular stone standing across the cella. Flints abound round about.

TELL EL MAṬÂBA'

Four or five hours further on, on the upper road to Hesbân, not far from several stone circles is a site providing a series of small flints, scrapers, and perforators, sometimes with reversed chipping. We had been led to look for a site, possibly Tardenoisian in the neighborhood; the microliths here are, however, undoubtedly Neolithic. They are found scattered over the surface near Tell el Maṭâba', southeast of the road to Hesbân about three quarters of an hour west from where the road, after continuously going up from the Jordan valley, begins to descend.

HESBÂN

Near Hesbân on a ridge dominating the valley that leads south into the head of the Wadi Hesbân, to the west of Râs el Moïe are numerous "cupules"; as many as seven were counted in a rocky surface, within the space of a few square meters. They range from three to twenty centimeters in diameter at the top and from three to ten centimeters deep. Two such cups were found with

their rims about three centimeters apart, connected by a shallow channel, not over one centimeter deep; the centers presented a line east-west, fifteen degrees northeast. A study of the monuments in the region, with the theories of Dr Marcel Baudouin in mind would be, in the least, interesting. Near Râs el Moïe was found a humanly chipped flint bearing "pin-head", or spot luster, heretofore not noticed by us outside of England.

Near Beyrout are three excellent open-air sites: Râs Beyrout, Râs el Kelb, and Ain Dehni.

RÂS BEYROUT

This promontory, extending boldly into the sea at Beyrout, west of the lighthouse, is rich in flints and has long been a happy hunting ground. There is now nothing particularly noticeable, except a quantity of flint pencils of the natural "starch" fracture; they present a length of ten or twelve centimeters, and a polygonal cross-section from one half to one centimeter thick; they would make excellent "*retouchoirs*" or flakers, but prehistoric man apparently thought otherwise. Further south, for ten or more kilometers, the coast is defended by a fine series of dunes, rising as much as twenty meters and extending over a space a kilometer broad. These energetic and mobile sand-hills move about, driven by the steady west winds on a substratum of hard, red indurated sand of earlier date and of quite stable position. The dunes are now threatening the southwestern part of the city and make walking to and from it a fearful bore; on their progress, however, the dunes cover and uncover the level red sand spaces and with them the flints left by the Neolithic inhabitants. There is no end to the specimens, and in spite of the superb collections in the University and its Medical School, there are plenty for the newcomer.

Our particular luck consisted in finding fifteen quite charming "*becs de perroquet*", near each other, strikingly localized; the patina is a superb cream yellow, and the luster, a sand-blown polish familiar to the Egyptian traveler. (See plate xxxviii, b.) All the specimens that we found are probably Neolithic, but the very acute Professor Desribes of the Medical Faculty thinks he may

have discovered a Solutrean atelier on this site. The "*becs de per-roquet*" came from one kilometer west of Boui.

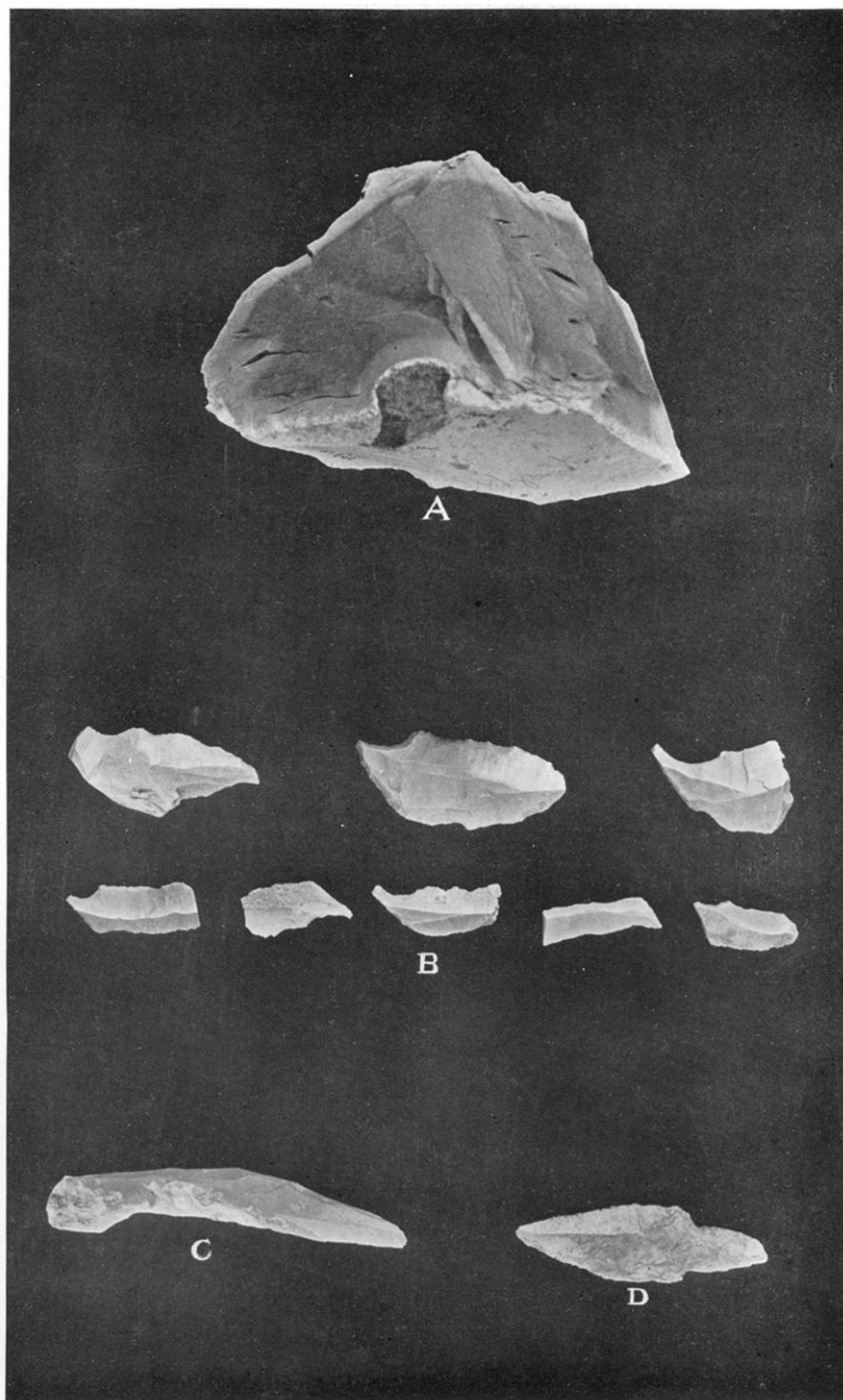
RÂS EL KELB

The bold cape at the mouth of the Nahr el Kelb or the Dog river needs no introduction to archeologists and historians; Assyrians, Egyptians, Greeks, Romans, and French have proudly set up their trophies of passage, and yet thousands of years before the earliest, Palaeolithic man flaked his flints, threw them away, and died off. Trickling water indurated his forgotten stones into a breccia all ready for the Romans to cut through when they made their road around the point. On the contrary, the surface specimens are mostly Neolithic; one of the latter is a chipped nodule which in a thickness of seventy-five millimeters shows a total alteration of substance of twenty-five millimeters; this seems to have occurred since the original human chipping.¹ Whatever may be true of the prehistory, in the light of present conditions of warfare, the history of the setting up of trophies may be incomplete at Râs el Kelb.

AIN DEHNI

This lies in a beautiful situation on the summit of a ridge about two kilometers southeast of Deba'a on the steam tramway ten kilometers north of Beyrout; it begins at the group of houses commanding the western pitch off and covers the whole plateau with part of its slopes towards Lebanon. This ridge is that immediately to the south of that on which stands the Monastery of St George Aourka, and was pointed out to us by Mr von Heidenstamm, a Swede, who has the direction of the Beyrout waterworks at Deba'a. This is one of many kind things he did for us; the last was to offer to keep all our heavier specimens, incapable of transport in a steamer trunk, in safety till after the war. Scattered over the plateau and rolled into the little gullies lay celts, scrapers, hammerstones, etc., of good workmanship. We also found an unmistakable tanged arrow point, chipped on both sides; this find was duplicated by us

¹ See plate xxxviii, a.



A. A SPECIMEN SHOWING ALTERATION OF THE FLINT ON A WORKED FACE, SURFACE OF RÂS EL KELB. B. A SERIES OF BEAKED FORMS OR "BECS DE PERROQUET," SURFACE OF THE SAND DUNES NEAR BEYROUT. C. A NEOLITHIC TANGED ARROW-POINT, SURFACE AT AIN DEHNI. D. A GOUGER OR PUSHER WITH AXES IN TWO PLANES, ANTILYÂS

but once; we had suspected that arrow points in collections were immigrants. (See plate XXXVIII, c.)

SITES IN CAVES

Of far greater importance than the open-air sites are the caves; of these we studied and excavated three; a small one in the Râs el Kelb mentioned by Zumoffen,¹ that of Djaïta at the sources of the Dog river and that of Antilyâs. The first situated very near the road and tramway about six hundred meters southwest of the station of Nahr el Kelb, gave us little but chips and a retouched "point" that at first looked Mousterian, but is probably later. Allowing for differences of patination, the whole deposit in the little cave may be Neolithic and perhaps slipped in from the surface above; the easier explanation is however to place it in late Palaeolithic times.

Before beginning work we of course called on those who had done the work heretofore; it may now be said that during a life accustomed to courtesy the author has never met a more charming and efficient willingness to help than that afforded by these men. Special mention should be made of Pères Zumoffen, Devrijl, Roncevalles, and Desribes of the University and of Professor Howard Bliss, President of the Syrian Protestant College, and of Dr Alfred E. Day, Professor of Geology in that Institution. The Cave of Djaïta entailed a walk of seven kilometers up the beautiful valley of the Dog river; the path lay for a major part of the distance along the stones forming one side of the Beyrout water aqueduct; at places it was rough, slippery, and high; failing other expected adventures, this walk went a certain distance in making them up. Plans are here given of the two larger caves; they are taken from Zumoffen with a few additions which will show where we worked.²

In the larger caves the specimens lay in breccia closely indurated, or between such blocks; some of the breccia, especially where it has been exposed to dry air and sun is as hard as marble; we once

¹ "*La Phénicie Avant les Phéniciens*," p. 22.

² With the permission of Professor Kellner, these plans are published; he has the permission of Père Zumoffen to use the latter's published material.

had recourse to dynamite; fissures, however, occur, and in Djaïta, they may have allowed a slight mixture of industries.

In Antilyâs, too, we found what seems to be a piece of metal more than a meter down; as a whole, in spite of this, the industries of the two caves as we found them were similar and homogeneous and fit into a Palaeolithic, rather than a Neolithic scheme.

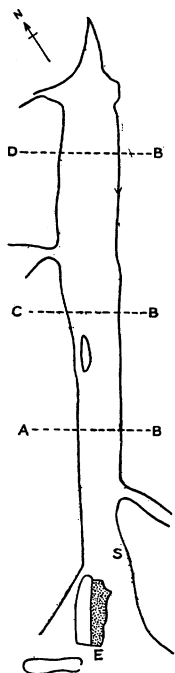


FIG. 126.

FIG. 126.—Plan of Djaïta cave (after Zumoffen). Scale .003 to the meter. D, B, Trench in soft deposit. E, Excavations in 1914. S, Stalagmite, thin layer.

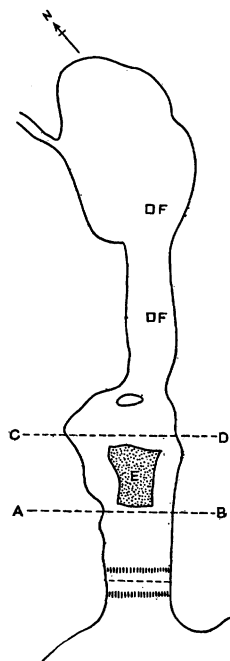


FIG. 127.

FIG. 127.—Plan of Antilyâs (after Zumoffen). Scale 1: 400. E, Space excavated in 1914. F, F, Earlier trial pits.

Specimens occasionally seem to have gravitated into the crannies and they show a strange localization, as where Dr Kellner found in Djaïta forty minute knives in a small pocket a meter down. Flints and bones in the breccia proper were hard to extract, and ran great danger of being broken.

Before commencing the search in the breccia we examined the soft deposit in the rear of Djaïta cave, and dug a trench from wall to wall near B-D (fig. 126).

The cave is five and one half meters wide and the western three meters are covered with a soft deposit a meter and a half deep in places. In this trench no stone of any kind was found, but the deposit was horizontally stratified with as many as twelve parallel strata; these differed in color and so were distinguishable in the candle-light; they looked red, black, and white, and a specimen of each was brought home for analysis.

It is highly desirable to know what the influence of fire has been in cave deposits, fire being almost exclusively man's agent, and the question relates directly to the length of occupation.¹

The analyses follow; they were kindly made by Dr W. G. Foye, of Harvard University.

Specimen A. (Red)

Contains kaolin, calcite, little or no quartz, little evidence of charcoal; effervesces with hydrochloric acid.

Ignition: Loss below 100° C. 4.78%.

Loss above 100° C. 32.66%.

"Can't say as to fire—if anything this is the final residue of fire mixed with humic acid and plant remains."

Specimen B. (Black)

Contains kaolin, calcite, little or no quartz, some bits that resemble charcoal. Effervesces with hydrochloric acid—no permanent foam left.

Ignition: Loss below 100° C. 5.38%.

Loss above 100° C. 19.88%.

"This specimen seems to give best evidence of influence of fire. Charcoal remains are present."

Specimen C. (White)

Contains kaolin, quartz, and calcite alone visible. Effervesces freely with hydrochloric acid; no permanent foam.

Ignition: Loss below 100° C. 2.31%.

¹ For instance in Jacobs cavern, Missouri, one hundred and fifteen cubic meters of ash had accumulated at the time of exploration. See Peabody, *Verhandlungen* xvi, *Intern. Cong. Americanists* (Vienna, 1909).

Loss above 100° C. 19.52%.

"Same as A but leached of all impurities."

These analyses are inconclusive as to the amount of ash or charcoal; the distinct stratification is hard to explain from natural causes; if human agents are responsible there seem to be represented more than one occupation.

At Antilyâs, is a bit of breccia adhering to the northwest wall two meters above the highest present level of the threshold and three meters higher than the rock-floor of the cave. That a quantity of breccia ever existed sufficient to fill the whole cave to this level is unlikely; we know there was once a very great quantity of breccia that has been removed, but the existence of this "mushroom" of breccia so high on the wall remains unexplained.

One more note on Antilyâs; on climbing up the western wall a catch or hand-hold was found two meters above the present deposit-level of the cave; this bit of protruding rock is polished and falls into the series of "polished rock" problems; such luster of unknown origin has also been noted near the Ozark caves.

THE SPECIMENS

There were four of us to explore the breccia; our faithful guide, dragoman, and friend, Lars Lind of the American Colony, Jerusalem, an Arab workman of doughty frame, and ourselves.

The results of the fourfold labor present a series of small flints, no one of which is perhaps unique but which form a collection new to this country and giving a good cross-section of what is almost certainly a Palaeolithic culture.

In addition to hundreds of flakes, the ordinary accompaniments of a work site, there are unretouched flakes apparently intended for use as such. Their use as arrow points is likely, and as other simple implements, not unlikely.¹

This is suggested by the rude tangs suitable for hafting, made, (a) by little notches on one or both edges of the flake, (b) by stop-

¹ See discussion in re southern France; Peabody, *Bull. Société Préhistorique française*, June 26, 1913.

ridges, (*c*) by humps, and (*d*) by shoulders. (See pl. xxxix, figs. 1, 2, 6, 8, 9, 10, 11.)

Other flakes sharp and slender, quite useful as projectile points occur; they are carefully worked but without secondary chipping, retouching, or marks of use. (See pl. xxxix, fig. 5.)

There is a class of unretouched flint blades as fine and tenuous as the end of a steel letter-opener; they are found localized in such a way as to presuppose carefully meditated effort in the making. (See pl. xxxix, fig. 3.)

The cave-dwellers did not lack skill in retouching these fine blades; on many, the edges show a fine beading worthy the steel of a jeweler; so fine are they that one is tempted to call in the theory of virtuosity to account for them. (See pl. xxxix, fig. 4.)

Few graters or "burins" were found; this is to be expected as practically no art of the kind that demanded their use in Palaeolithic Europe has here been discovered. (See pl. xxxix, fig. 12.)

Side-scrapers, or "racloirs" are proportionally not common, front-scrapers or "grattoirs" of fine quality are on the other hand, abundant. (See pl. xxxix, figs. 13, 15.)

Nuclei and nucleiform scrapers we frequently found. Some of them show the undercutting characteristic of the English nuclei and there occur good examples which show the two used or scraping edges in planes at right angles to each other. (See pl. xxxix, fig. 14.) There are discs and various crenated forms, and a series of rough, concave-convex implements that look like pushers.

Students from California may remember the characteristic flakes from Santa Cruz, with a triangular cross-section giving three narrow faces; of these two are smooth and one bruised; forms almost exactly similar are not uncommon in the Syrian caves: flints with a face or "dos rabattu." (See pl. xxxix, fig. 7.)

Little or no worked bone was found by us and no human remains, though they have been found in Antilyâs.

As yet, identification of our animal bones has failed to add to the species reported by Zumoffen; the most striking feature is the presence especially at Djaïta of thousands of specimens of *Helix pachya*; they form much of the substance of the indurated breccia;

large snails seem to have been the great staple of the diet of the inhabitants.

It has been suggested with really much plausibility, that the fine beaded points were of use in extracting these animals from the shell, a process assisted by the roughening of the edges and point.

The general aspect of the flint collections is late Palaeolithic, possibly Magdalenian; specimens from Bruniquel in the Peabody Museum and Magdalenian blades and scrapers show analogies; but Hugo Obermaier, to whom a series was sent by the Beyrout professors, declares them Aurignacian—and Obermaier is not credulous.¹ All would agree that there was some mixture in Djaïta; we ourselves found a few fragments of pottery at the top of the deposit under a thin layer of stalagmite.

Our kind friends of the Université St. Joseph gave us great encouragement for future work: that probably virgin caves were to be found along the inland slopes of the Lebanon.

If the frightful war, which in August of course cut short our work, shall happily come to an end, no more inviting field exists for us to reënter or for others to try at first hand.

DESCRIPTION OF PLATE XXXIX.

1. An unretouched flint point with worked base and stop-ridge.
2. A long unretouched point or knife, with worked base, stop-ridge and shoulder.
3. A slender perforator or needle with minute retouching near the point and a small worked tang.
4. A characteristic point retouched on both edges.
5. A slender point retouched on both edges and with a stop-ridge.
6. A "shover" or pusher, unretouched, with two stop-ridges.
7. The bruised face of a flake, triangular in cross-section; the other two faces are smooth.
8. A lozenge-shaped graver with a shouldered tang.
9. A graver with a notched tang.
10. 11. Points with rude barbs near the pointed ends.
12. A graver with traces of use or retouching near the point.

¹ See *Der Mensch der Vorzeit*, p. 317.



1



2



3



4



5



6



7



8



9



10



11



12



13



14



15

13. A double front scraper or "grattoir" by reversing the flint, the upper end (as seen in the drawing) becomes the scraping edge.
14. A nucleus or nucleiform scraper from Djaïta.
15. A double side scraper or "racloir" and single front scraper or "grattoir" combined.

PEABODY MUSEUM,

HARVARD UNIVERSITY.